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A WEEKLY EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(26) Sarcoma of the Corpus Callosum.

DR. C. A. OLIVER relates (*University Medical Magazine*, April, 1891) the case of a woman, aged 43, in whom lassitude coming on during lactation was the first symptom of illness. A few months later visual power in the left eye began to fail. Anosmia commenced soon afterwards, and became complete in the course of a year. Taste next became perverted, and finally almost extinct. In January, 1890, vision was noticed to be defective in the right eye; debility and hebetude had greatly increased. In the following month severe flooding took place, and was followed by striking mental change; the patient fell into a deluded, hallucinated state. She fancied she saw multitudes of worms emerging from a pile of straw (shortly before she had visited a zoological collection and seen a number of snakes); in imagination she built a fire around the creatures, and for many days was occupied in throwing back those that escaped through the fiery circle. This condition was succeeded by one in which objects actually seen were indefinitely multiplied—for example, one man appeared to increase to hundreds, each similar and clearly defined. Tactile hallucinations subsequently were superadded; reptiles and insects seemed to be entangled in her hair and creeping over her body. In March, 1890, Dr. Oliver ascertained that central vision for form was $\frac{1}{30}$ and irremediable in the right eye; in the left eye vision was reduced to the perception of light in a small area on the nasal side of the field. No accommodation could be obtained. Pupils circular; left much the larger, and its iris immobile to the strongest light, except when projected on a small area to the nasal side. Right iridal light reflex sluggish. On testing the colour visual fields of the right eye, conditions symptomatic of hysteria were found. The left retina had an œdematous appearance; extraocular muscles unaffected; audition much impaired on the left side. The totality of symptoms pointed to hysteria, with gross lesion in the anterior basal fossa. Isolation from relatives for several weeks resulted in almost entire disappearance of excitement and illusions and hallucinations, but increasing debility ended in coma and death three years and a half from the commencement of the illness. A spindle-celled sarcoma sprang from the knee of the corpus callosum, widely separating the uncinate gyri, and causing much pressure on the temporal lobes; its greatest diameter, 6 centimetres, was transverse, and its major bulk on the left of the median line. A projecting portion lay beneath the chiasma. The optic nerves coursed round the tumour, which rested on the body and lesser wings of the sphenoid and the orbital plates of the frontal and ethmoid bones. Apparently the olfactory lobes were intact. Slight œdema of the left optic nerve, papilla, and adjacent part of the retina was present.

(27) Muscular Atrophy associated with Join Disease.

DARKSCHEURTSCH (*Neurologisches Centralblatt*, June 15th, 1891) records the case of a man suffering from rheumatoid arthritis of his left shoulder, who died from heart disease. The necropsy showed the characteristic changes in the shoulder-joint. The spinal cord, the brachial plexus, and its branches were all quite healthy upon microscopical examination. The anterior cornual cells on the two sides of the cord were the same. The brain was perfectly healthy. The muscles chiefly affected were the left supraspinatus, infraspinatus, and deltoid; to the naked eye they were obviously atrophied and of a paler colour than those on the other side, and they had lost their firmness and elasticity. Transverse and longitudinal sections and teased preparations were examined. The fibres showed no trace of the degeneration commonly seen in muscles; the nuclei and the transverse striation all appeared normal. Careful comparison with the fibres of the same muscles on the sound side showed that the fibres of the muscles around the affected joints were considerably smaller than they should be. Considering how small the atrophied fibres were their nuclei were remarkably large, but there was no distinct evidence of proliferation of cell elements. Longitudinal sections showed that many of the fibres were crumpled in their long axis. In some parts there appeared a compensatory increase of the intercellular substance, but no alteration of its vessels or nuclei. (On this subject see also SUPPLEMENT, January 24th, 1891, p. 25.)

(28) Vagus Neurosis.

DR. BREMER (*Alienist and Neurologist*, April, 1891) reports the case of a young girl with neurotic ancestry as illustrating disease of the vagus, chiefly affecting its respiratory portion. For four years after suffering from measles the patient had daily paroxysms of pain in the epigastric region. This condition suddenly ceased, and breathing at once became deep, slow, and laborious. Dr. Bremer found that respirations varied from 8 to 12 per minute; the muscles of forced inspiration became prominent during the act; the chest was abnormally expanded, the back

was arched, and the shoulders were raised. Attempts at physical exertion induced yawning and great dyspnœa. During absolute rest the dyspnœa ceased, and a deep inspiration only occurred once in 10 or 15 minutes. Pulse 70 to 80. Other bodily functions in normal condition. Strychnine for a time produced improvement. After taking quebracho for several months respirations became normal.

(29) Degenerative Diseases of the Spinal Cord.

Dr. DANA (*Journal of Nervous and Mental Disease*, April, 1891) is of opinion that amongst the various combined scleroses of the spinal cord there is an additional class which has claims to be regarded as a distinct type. In the group of cases collected by him and others, most of the patients were females past 45 years of age. Apparently both syphilis and alcohol could be excluded from the etiology. Numbness of the extremities usually was the initial symptom, followed by progressive enfeeblement, which always terminated in paraplegia. Great emaciation and anæmia were present, often with obstinate diarrhœa. Some cases showed anæsthesia and ataxia, but spastic conditions, with ankle-clonus and exaggerated knee-jerk, were more common. Special senses and speech were not affected. Partial dementia occasionally was observed in the final stage. Two years was the average duration of the disease. The pathological anatomy consisted of a somewhat dense sclerosis of the posterior and lateral columns of relatively old date, and a subacute, recent degenerative process involving both white and grey matter, producing in the former a vacuolated appearance due to rapid destruction of nerve tubes, and in parts of the anterior cornua disintegration of the nerve cells. Associated with the terminal focal softening, localised meningitis and small hæmorrhages were sometimes found.

(30) Insanity in Twins.

DR. WILLIAM WORCESTER (*American Journal of Insanity*, April, 1891) records a somewhat unusual case of insanity occurring in twins at the same time. One of them was admitted into the Michigan Asylum in December, 1879, at the age of 26; he and his brother had always been below par intellectually, and he was suspected of masturbation. He had developed delusions, and had been much depressed before his admission. His mental condition varied; at times he was depressed, and then would pass through a period of mental excitement. Signs of pulmonary disease developed about December, 1880, and he died in August, 1883, from that cause. His twin brother was admitted in June, 1881, suffering from mental depression, which was said to have been coming on for about four years. In November of the same year he was found to be suffering from phthisis, and he died of it in the following September, so that the lung affection ran a more acute course in him than in his brother.

SURGERY.

(31) An Arm Torn off without Subsequent Shock.

DR. HAYES AGNEW communicates to the *University Medical Magazine* of Philadelphia (No. 9, June, 1891) the following case which came under the notice of Dr. W. W. Sennett, of the Chicago and North-Western Railroad. A switchman in a retired part of one of the yards picked up the arm of a man which had been crushed off at the shoulder-joint, and having on it a shirt sleeve. The owner of the limb could nowhere be found, nor could any clue to the accident be discovered. Five days after the occurrence the police found a man at Clyborn, five miles from the scene of injury, exhibiting his mutilated shoulder in proof of his arm having been cut off by a train. This exhibition he had made in twenty or thirty saloons for the purpose of obtaining whisky. During the time that had elapsed since the accident no dressing had been applied, nor had any vessels been tied. On examination it was found that the arm had been torn out of its socket, leaving the clavicle and scapula intact. Dr. Agnew, after calling attention to the extraordinary nature of the case, and to the marvel of the man having been able to go about for five days after such an accident without shock or bleeding, points out that it is not improbable that had one or two more days elapsed without dressing, fatal hæmorrhage would have ensued from sloughing of the crushed vessels. He adds that such sloughing is often delayed as late as the seventh day.

(32) Suprapubic Lithotomy.

DR. W. W. KEEN (*Philadelphia Medical News* April 18th, 1891) gives an account of five cases of suprapubic lithotomy, in which several points of interest are raised. In one a large piece of the prostate, which projected into the bladder, was removed with scissors, several calculi being extracted at the same time, and the patient made an excellent recovery. In the second case an attempt was made to close the bladder with sutures, but without success, though eventually a good recovery resulted. In the third death occurred suddenly five days after the operation, in consequence of surgical kidneys. The fourth operation was undertaken for papilloma, and the fifth for obscure hæmorrhage. When the bladder was opened there was some difficulty in ascertaining its source. The blood seemed to collect gradually at the base of the bladder, and it was not until the ureters were catheterised and the urine was obtained from them direct that the fluid from one ureter was found to differ in appearance from that obtained from the other. The history of this case is, however, incomplete, as the exact cause and source of the bleeding still remained a mystery.

(33) Perforations of the Vermiform Process and Cæcum.

DR. H. EINHORN has published (*Münchener medicinische Wochenschrift*, Nos. 7 and 8) the following conclusions, based on the records of 100 *post-mortem* examinations in cases of peritonitis from perforation of the appendix vermiformis, made in the Munich Pathological Institute from 1854 to 1889: Cases of perforating tuberculous, enteric, and dysenteric ulcers have been excluded from this list. (1) Perityphlitis in 91 per cent. of the cases is the result of disease of the vermiform process; (2) primary perforation of the cæcum occurs in only 9 per cent. of the cases; (3) notwithstanding the unanimous statements of all previous observers to the contrary, typhlitis and perityphlitis occur with like frequency in both sexes; (4) predisposition to these lesions occurs only in advanced age, not, as has generally been assumed, in youth; (5) perforation of the vermiform process is very seldom caused by the presence of a foreign body, and in such instances usually by hardened and inspissated

masses of fæcal matter; (6) perforation is favoured by deviations from the normal form and position of the vermiform process, and also by diseases of its mucous and muscular coats, due, in many instances, to an unhealthy condition of the intestinal contents; (7) typhlitis and perityphlitis are caused much more frequently through injury.

MIDWIFERY AND DISEASES OF WOMEN.

(34) Tubal Abortion.

Dr. Zedel (*Zeitschrift f. Geburtsh. u. Gynäk.*, vol. xxi, Pt. 2, 1891, p. 498) agrees with Werth in including under the term "tubal abortion" all tubal pregnancies where the ovum is projected out of the abdominal ostium of the unruptured tube into the peritoneal cavity, with more or less hæmorrhage. To 14 cases already recorded Dr. Zedel adds 4 more recently operated upon by Dr. Veit. Tubal abortion is a relatively frequent termination of tubal gestation. A large proportion of cases of hæmatoceles, which form gradually in the course of several days, are due to tubal abortion. The distinction of tubal abortion as a definite pathological condition is likely to modify many current doctrines on the morbid anatomy and treatment of several well-known acute and subacute pelvic affections.

(35) Tumours of the Decidua.

Professor Sänger (*Centralb. f. Gynäk.*, June 13th, 1891) has collected a considerable number of cases of "deciduoma." A perfectly innocent form exists, which must not be mistaken for inflamed and degenerate relics of decidua left adherent to the uterine walls. Sänger and Chiari have observed a malignant deciduoma which gives rise to metastases—a true sarcoma of the decidua, in fact. Foul discharge and hæmorrhages follow delivery, and death occurs within six or seven months, after symptoms of disease in the bones, lungs, and other organs. The metastatic deposits in the lungs resemble decidua, bearing the characteristic cells. In the discussion on Professor Sänger's paper (reported in the *Union Médicale*, June 2nd), Dr. Müller stated that he had seen a case where masses of decidua-like tissue were found in the uterus and metastatic deposits developed in the vagina, abdomen, and nates. Dr. Veit believed that these cases were simply instances of pregnancy during cancer of the uterus.

(36) Hydramnios in Early Pregnancy: Delivery of Unruptured Amnion.

Dr. F. W. N. Haultain (*Amer. Journ. Obstet.*, June, 1891) describes a case where a multipara, aged 35, ceased menstruating in the beginning of August, 1890, and suffered from vomiting in September. This ceased in the second week of October, and as menstruation still remained in abeyance, the patient believed that she was pregnant. In December she grew doubtful on that point, as there were no fœtal movements, and she was not so large as she was wont to be at the fifth month of pregnancy. On January 10th, pains and hæmorrhage set in, and she was delivered of a cyst. Hæmorrhage and pain continued till, by the application of hot water and suprapubic pressure, a large fleshy mass was expelled from the uterus. The mass proved to be an entire uterine decidua. The entire chorion bore villi, so that the growth of the ovum could not have exceeded two months. The cyst, Dr. Haultain considered, could be nothing else but the amnion filled with liquor amnii, in which complete liquefaction of the embryo had occurred. Rapid and extreme distension of the uterus in the second month by early hydramnios caused excessive vomiting, and the death and destruction of the fœtus.

(37) Pathogenesis of Purulent Puerperal Affections.

Dr. Rubeska (*Schmidt's Jahrbuch d. gesam. Medicin*, No. 5, 1891) has made some researches on the etiology of puerperal fevers, especially purulent peritonitis. He found that in healthy women during childbed the lochia were free from germs. Yet when the slightest degree of fever was present, micro-organisms were found in the lochia. When fever was higher, streptococci appeared. In purulent parametritic exudations, pyogenic bacteria were detected, most usually streptococci, rarely staphylococci. Pure cultures of streptococci could be found in peritonitic exudation, when not purulent. Streptococci were detected in the metastatic abscesses of puerperal fever. Often, especially in moribund cases, bacteria appeared in the blood. The streptococcus pyogenes is probably the most frequent cause of puerperal fever, the stapholycoccus pyogenes being more rarely the source of that disease.

(38) Vaginal Hæmorrhage from a First Coition: Septicæmia: Death.

Dr. Francis Haynes, of Los Angeles, California (*Amer. Journ. Obstet.*, June, 1891) describes a case where a healthy well-developed young woman bled so freely after the first coition that her husband sent for a doctor. Persulphate of iron was applied to the lacerated hymen, and this checked the hæmorrhage. On the next night free bleeding again followed connection. The doctor was summoned once more. He hastily applied a tampon and arrested the hæmorrhage. Unfortunately, overwhelmed by an enormous practice, he forgot to remove the tampon till he was reminded of his omission on the fourth day from his first visit by a message informing him that the patient had had a severe chill. High fever and drenching sweats set in. Dr. Haynes found her sinking, and she died on the tenth day. The hymeneal rupture was not greater than usual. Dr. Haynes insists that styptics and tampons are but bungling methods of checking hæmorrhage. Hæmostatic forceps are invaluable; that instrument can be left dangling from the bleeding point for a few hours with little or no inconvenience to patient or physician. It is equally useful in hæmorrhage from the hymen, vagina, rectum, uvula, or any other part on or near the surface of the body.

(39) Perineo-scrotal Pseudo-hermaphroditism.

M. Paul Petit (*Bulletins et Mémoires de la Soc. Obstét. et Gynéc. de Paris*, May, 1891) exhibited before the Paris Obstetrical Society a subject, aged 20, who had been christened and brought up as a woman, and served, as a girl, at a restaurant. Of moderate height, the patient had long hair, a masculine expression and voice, a downy moustache, and flat breasts. The larynx was not prominent. The sexual desire was towards males, coitus was easy and pleasurable, but without emission. No menstrual flow or molimen had been noticed. The patient had recently contracted syphilis. The penis was well developed. The corpora cavernosa were completely separated from the urethral canal. A ridge of skin (*bride*

masculine of Pozzi) ran from the glans along the groove between the cavernous bodies, dividing posteriorly into three parts, the lateral divisions being continuous with rudimentary labia minora, the median segment running to and around a meatus urinarius of the female type. Behind the meatus was the vaginal orifice, which bore a rudimentary hymen, hardly admitted the little finger, and led to a canal over 2½ inches long. The labia majora were well developed and covered with a papular syphilide. No uterus could be detected on vesico-rectal palpation. No testes lay in the labia or inguinal canals. On rectal exploration a firm, reniform, movable body could be felt to the left; it was probably a testicle. M. Pajot believed that this patient was a true hermaphrodite. M. Polaillon insisted that it was a male, and that there was no such thing as a true hermaphrodite, at once a potent male and fertile female. M. Jouin intended to dispute this doctrine. Dr. Petit's case was evidently an instance of perineo-scrotal hypospadias.

DISEASES OF CHILDREN

(40) Intubation of the Larynx.

THE subject of intubation was again discussed at the Berlin Medical Society on March 18th, 1891 (*Berliner klinische Wochenschrift*, June 22nd), when Dr. A. Rosenberg (first assistant Royal University Poliklinik for Diseases of Throat and Nose) took exception to some of the statements and conclusions of Dr. Schwalbe (see SUPPLEMENT, April 25th, 1891, page 133). He said the relative merits of intubation and of tracheotomy had not been equally well stated. It was well known that erysipelas or wound diphtheria, or reinfection through the wound might take place after the latter operation. Granulations within the larynx occasionally followed tracheotomy; sometimes decubitus from pressure of the tube and dangerous hæmorrhage might also ensue. He allowed that certain difficulties in feeding intubated children occurred, but the majority of operators had not found them insuperable. Schwalbe, when referring to these difficulties, had not stated whether he had followed Casselberry's advice to let the head be placed very low—a position which facilitated swallowing after intubation. When the tube was coughed out it was frequently followed by a quantity of membrane. If a membrane did not come up it should be got up with forceps, as was done after tracheotomy. Cough was often due to the thread attached to the tube passing over instead of to one side of the epiglottis in cases where the tube itself was otherwise suitable and well-fitting. The blocking up of the tube with mucus and the insufficient aëration were said to cause atelectasis and subsequent pneumonia. But Ranke's statistics showed little or no difference in the relative frequency of pneumonia after tracheotomy and after intubation. If much disease were present in the lungs, intubation was contra-indicated. As to the frequency of decubitus, though it could not always be prevented, it was an uncommon occurrence to any dangerous extent. Much depended on the dexterity of the operator. It was necessary also to have proper instruments. They should be made exactly on O'Dwyer's model; if not, and should decubitus occur, he would hold the instruments directly responsible. Decubitus could, in a measure, be prevented by changing and using tubes of different lengths, so that their pressure did not always bear upon the same point. Statistics on this question would only be of any value when dealing with very large numbers of cases, for then the fallacies (which were unavoidable) were reduced to their lowest average. Different epidemics of diphtheria gave different results, by whatever method treated. While upholding intubation, he did not for a moment imagine that it would displace tracheotomy. In other than the acute forms of laryngeal stenosis, intubation promised to be of the greatest service; authors and illustrative cases were quoted. In chronic disease intubation was entirely free from danger; many of the difficulties which beset the operation in acute cases, apart from the *technique*, were primarily due to the highly-inflamed and easily-injured condition of the parts. In chronic cases the laryngeal mucous membrane was usually very tolerant, and cases were recorded in which patients had worn a tube uninterruptedly for ten months. In intubating adults—while on the one hand they could assist the operator more than children would, on the other the distance to the epiglottis was much further, so that the finger was hardly long enough to reach it—something was gained by telling the patient to pull his tongue as far forward as possible. Two cases were recorded; one of abductor paralysis and one of granuloma stenosis treated by intubation.

(41) Treatment of Diphtheria by Injections.

DR. A. SIEBERT, of New York, reports (*Arch. of Ped.*, June, 1891) the results of the treatment of 35 cases of diphtheria by the method of submembranous injection suggested by him last December. The treatment is based upon the view that diphtheria is due to the Klebs-Löffler bacillus, and that this bacillus is to be found in an active state not in the false membrane, but in the lower stratum of the mucous membrane, where it may be accompanied by pyogenic cocci. He condemns the practice of swabbing out the throat on the ground that the antiseptic used can only reach the bacilli in the false membrane where they are practically innocuous, and that by distributing shreds of membrane over parts of the pharynx previously unaffected, new foci of disease may be started. The antiseptic he recommends is chlorine water (*U. S. P.*) injected with a syringe of peculiar construction. The nozzle of the syringe fits into a long tube, the end of which terminates in a flat disc: the disc carries five or six hollow needles, set upon the disc as the bristles are set on to the back of the brush. Several discs are used, making various angles with the tube. The syringe and tube having been completely filled with chlorine water (which must be fresh), the tongue is depressed, the needle points are brought directly over the false membrane, and pressed through it into the inflamed tissue below; about 12 or 15 drops are then injected. In this way it is believed that the chlorine water is brought into direct contact with the active bacilli and cocci. The pain caused by the injection is slight. After injection the following mouth wash and gargle is prescribed:— ℞ tinct. iod., ʒss to ʒj, acidi. carbolici ♏x, aq. ad ℥iv, a teaspoonful to be used for gargling and swallowing alternately every fifteen minutes from 6 A.M. to midnight. Children too young to gargle are given the same mixture but with half the quantity of carbolic acid every half hour. An ointment consisting of equal parts of zinc and mercurial ointment is rubbed into the skin over enlarged glands, and a narrow ice bag

is adjusted over the swollen parts of the neck. Two cases died; in two others the injections had to be repeated on the day after the first injections. In the cases in which the diphtherial process was limited and affected only parts accessible to the syringe, the local œdematous swelling diminished in five or six hours, and the temperature fell 3° or 4°. The other general symptoms were also relieved; indeed, if appetite did not return in twenty-four hours, it was taken as an indication that all the foci of disease had not been treated.

PHARMACOLOGY AND THERAPEUTICS.

(42) The Therapeutics of the Senile Heart.

Dr. George W. Balfour (*Edin. Med. Journ.*, June, 1891) says that the senile heart is synonymous with the gouty heart, but that it must be remembered in the first instance that all affections of the heart found in the old are not necessarily senile in origin, and he quotes the case of an old man who had had mitral incompetence for no less than sixty-two years at least. Another point to be remembered is that even when an existing affection of the heart is certainly senile in character in the sense of having come on primarily and insidiously after middle life, and possessing the ordinary characters of a heart strain from internal causes, the symptoms complained of do not always depend upon the heart affection, even when they seem to be distinctly cardiac in their nature. Anæmia from various causes, for example, loss of blood or malignant disease, may be the actual cause of the symptoms. Simple irritability is the earliest indication of advancing senility in the heart; uneasiness or actual pain localised to the heart region, fits of palpitation on any sudden exertion or emotion, tremor cordis coming on without warning—these are the symptoms of cardiac failure based on malnutrition. The pulse may be small, soft, and compressible, and the blood tension low. All possible sources of loss of blood or of interference with blood-making organs should be sought for, and removed when possible. Amongst such causes may be mentioned loss of blood from the nose or from piles, an insidious but persistent diarrhœa, or excessive venery. In regard to treatment, where the blood pressure is low any natural or unnatural drains upon the system must be remedied; the amount and nature of the work done and the exercise usually taken must be so regulated as to be adapted to the needs of the system. But even more important than exercise is temperance, not only in drink, but more especially in regard to eating. Many senile affections of the heart owe their existence to over-indulgence, and all are undoubtedly aggravated by it. Cases of senile heart may be grouped for dietetic purposes under two distinct heads—first, those who are over their normal weight, who are breathless with occasional irregularity of the heart, and with or without marked signs of cardiac dilatation; and, secondly, those who are at or below their normal weight, and who suffer very considerably from cardiac disturbances of various characters, also with or without very evident signs of dilatation of the heart. The first point of importance is to divide the day properly, so that there may be a sufficient interval between meals. In health the stomach empties itself usually three or four hours after a meal, and requires a rest before more food is ingested. We therefore get the following rules, namely: ((1) not less than five hours between two meals; (2) no solid food of any kind is to be taken between meals; (3) all invalids should have their most important meal in the middle of the day. A model dietary for a patient would be somewhat as follows:—Breakfast at 8.30 A.M. Small slice of dry toast with butter, one soft boiled egg, or a small quantity of fresh white fish, with a small cup of good coffee, or tea with cream milk or sugar if required; cocoa, of course, may be substituted for the tea or coffee, and some patients prefer oatmeal porridge, but in that case they must give up the beverages mentioned. Dinner at 1.30 or 2 P.M. to consist of fish, meat, and pudding, any two being taken. After a time any kind of fish and any kind of meat may be eaten in moderation, but at first the choice should be restricted to white fish boiled in milk, sweetbreads, chicken, game, rabbit, or tripe; any form of milk pudding with stewed fruit may be allowed, but soup, pastry, pickles, and cheese are absolutely prohibited; one vegetable may be given, namely, potato; spinach, tomatoes, onions, leeks or celery, peas and beans must only be used sparingly; all other kinds are absolutely prohibited. A single cup of tea (or, better still, hot water) may be allowed at four or five o'clock, but not a morsel of anything to eat then. At 7 P.M. comes the final meal, consisting of a little white fish and potato, a bit of milk pudding, porridge and milk, or cold bread with hot milk poured over it. At bedtime a small cupful of hot water will soothe the stomach, promote sleep, and pave the way for a comfortable breakfast the next morning. Alcohol should, if possible, be entirely dispensed with; there is no more potent cause of cardiac dilatation than the abuse of spirits, and no more certain obstacle to the rehabilitation of such a heart than the excessive use of them. If old habits are too strong a little light claret, or a light white hock should be given with the midday meal, or a little well-diluted whisky. Tobacco should be absolutely given up or its use reduced to a minimum. As regards drugs, it must be remembered that all varieties of the senile heart are forms of failure with complications. The treatment must be tonic, and digitalis is the chief and most thoroughly reliable cardiac tonic. Where any drug can act at all it will never fail; it should be employed in doses of ten minims of the tincture in the twenty-four hours, or at most in the twelve hours. Nativelle's granules form an elegant and efficacious preparation; the dose should not exceed 1 granule in the twenty-four hours. The object of using digitalis in the senile heart is not to remove dropsy to slow the pulse or to contract the heart, but by the gradual accumulation of trifling advantages to tone up, strengthen, and improve the nutrition of the cardiac muscle. Strophanthus cannot rank with digitalis except that a solution for hypodermic use is much more possible. Strychnine and arsenic are both very useful in the treatment of the senile heart, and, in lesser degree, the proto-salts of iron. For relieving spasm and lowering blood pressure the nitrites, and especially nitroglycerine, have no equal. Iodide of potassium and colchicum are indicated where the gouty nature of the affection is very pronounced, whilst for acting on the bowels rhubarb and soda, or the compound colocynth pill, are to be preferred.

(43) Ethylene Bromide in Epilepsy.

Dr. Donath (*Therap. Monatshefte*, June, 1891) has made trial of ethylene bromide in severe epilepsy. His idea in using it was that the saline

actions of the ordinary bromides are injurious in many cases, and that it would be of advantage to have a bromine compound which would not exert the actions of a salt. Bromide of ethylene ($C_2H_4Br_2$) contains 90.9 per cent. of bromine by weight. It is a slightly brownish liquid, smelling like chloroform, with sweetish then burning taste, insoluble in water and much heavier, but very soluble in rectified spirit, and giving with oil of almonds a clear solution. It can be prescribed as follows: Ethylene bromide 75 grains by weight; oil of almonds emulsion to 1,500 grains; oil of peppermint 2 drops; 30 drops two or three times daily in one-third of a glass of sugar-water or milk. The dose is gradually raised to 60 drops three times daily. (One gramme or 15 grains by weight of ethylene bromide gives 38 drops.) Also ethylene bromide, rectified spirit, of each 75 grains; oil of peppermint 2 drops; 5 to 10 to 15 drops thrice daily in a small glass of milk. He also gives it in capsules: Ethylene bromide 3 drops; oil of almonds 6 drops; two to four capsules three times daily. When given in these ways disturbances of digestion were not observed. It was given in twenty-one cases of epilepsy, but only ten of these were observed long enough to give reliable results, and these are reported at length. The epileptic attacks become fewer, milder, and shorter in duration; and not seldom assume the form of *petit mal*, or simply muscular twitchings without loss of consciousness. No thorough comparison with bromide of potassium is possible from so small a number of cases, but it is certainly a good substitute for it. It shows also that it is the bromine and not the potassium which is the active part of that drug. The author draws special attention to the fact that three of the patients, while taking ethylene bromide, instead of having convulsions, suffered from muscular twitchings at intervals without any loss of consciousness.

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(44) Calomel in Affections of the Bile Ducts.

PROFESSOR SACHARJIN (*Berlin. klin. Wochenschr.*, June 22nd, 1891), as the result of long experience, advocates the use of calomel in hypertrophic cirrhosis of the liver, in all cases of gall stones, and in catarrhal jaundice. He formulates the indications for its employment in the two latter conditions as follows: if a regulated mode of life and diet, baths, and especially the use of mineral waters only slowly improve matters, if the gall bladder or whole liver remain tender, or if fever be present, then the mineral waters (alkaline or alkaline-earthy) should be discontinued and calomel substituted, the calomel being given in hourly doses of 1 grain until free evacuation of the bowels occurs. It is then stopped, but the diarrhœa continues for one or two days, by which time the condition of the patient is much improved, or there is complete temporary recovery from the symptoms. As soon as the calomel is discontinued, the mineral water is again given. The following case of catarrhal jaundice illustrates his method of treatment: A man, aged 39, on November 13th got 1 grain calomel hourly for five hours, and then every two hours for ten hours —10 grains in all. He used a mouth wash of chlorate of potassium, and his diet was regulated carefully. There was free evacuation of soft green fæces, and the urine became clearer. From November 15th Ems water was ordered—a half-glassful thrice daily. There was only very temporary improvement, and on November 21st the calomel was again given in the same way and in the same amount. Again there was only temporary improvement, and on December 1st the treatment was repeated, a dose of castor oil being given afterwards. Improvement immediately followed, and continued rapidly, the patient leaving the hospital quite recovered on December 18th.

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(45) Absorbent Liniments (Linimenta Exsiccantia) in Skin Disease.

PROFESSOR PICK, to whom belongs the merit of introducing medicated gelatines in the therapeutics of the skin, has suggested (*Prager med. Wochenschrift*, 1891, No. 21) an important improvement in the method of preparation. Bassorin is a gum, unlike gum arabic, almost insoluble in water, in which, however, it swells to a syrup-like mass, which, when applied to or gently rubbed on a surface, dries as a very thin delicate covering. Linimentum exsiccans, the name which he gives to the preparation, can be prepared either by heat or cold. The constituents are 5 parts tragacanth, 2 parts glycerine, and 100 parts of distilled water. In small quantities it is best prepared cold, the finely-powdered tragacanth being well rubbed up with the other constituents until it forms a homogeneous syrup or lanolin-like mass. For preparation in large quantities it is best prepared warm, yielding in this way an aseptic mass which remains aseptic. The liniment so prepared is ready for use, and when allowed to dry in thin layers on inflamed and congested skin produces a feeling of coolness followed by a feeling of tension. The application is free from all the disadvantages connected with fatty substances. With the simple liniment compound liniments can be formed containing oily substances, such as oleum fagi, cadini, Rusci, ichthyol, styrax, balsam of Peru, etc., in proportions of 5 to 10 per cent. Insoluble substances, such as chrysarobin, oxide of zinc, the white, red, or yellow precipitates of mercury, iodoform, iodol, salicylic acid, etc., can be added to it in various quantities until it may acquire the consistence of a paste, increasing its drying qualities. Pick found that a 10 per cent. tar liniment produced as much effect as a simple tar preparation, and on account of the smaller amount of absorption could be used more freely without danger.

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(46) Intravenous Injections and their Therapeutic Uses.

M. MAYET (see SUPPLEMENT, July 4th, 1891, p. 5) in a concluding paper (*Lyon Médical*, June 7th, 1891) on intravenous injections of chloral, enumerates the kinds of cases in which these are specially indicated. According to him they may be useful in (1) rabies; (2) tetanus; (3) uræmia, with active delirium or convulsions (and puerperal eclampsia); (4) delirium tremens, when this threatens life and other means are unavailing; (5) strychnine poisoning; and (7) in certain exceptional cases of disease associated with great pain uncontrollable by morphine. In using such injections it must be remembered that chloral thus administered is about four times as powerful as when it is gradually absorbed from the alimentary canal; small doses must therefore always be given, and it will be well also to be very cautious in commencing the treatment owing to possible idiosyncrasy in the patient. The concentration should not exceed 1 : 30, for with stronger solutions there is a risk (*a*) of injecting the dose too rapidly, (*b*) of producing a deleterious action on the corpuscles, (*c*) or of producing thrombi in the vessel. In no instanc

has the author seen hæmoglobinuria produced by the injections, and only once was a transitory albuminuria observed, although the concentration of the drug was much greater than now recommended by him. Cardiac troubles might be produced as a result of too rapid injection, and these would have to be very actively combated by electricity, artificial respiration, etc. There need, however, be no fear of their occurrence if the above precautions be exercised. As regards dose, this should not exceed 15 grammes for a single injection, and not more than 45 or 60 grammes should be given in twenty-four hours, but much will depend on the effect produced. In administering the injections M. Mayet uses a glass syringe large enough to hold the whole of the dose, and capable of being easily rendered aseptic. A leather packing for the piston must be discarded, as it will not bear the application of heat; the best packing for the purpose is one either of elder pith or of asbestos. The syringe, having been sterilised by boiling, is filled with the liquid previously heated to body temperature; next, the veins of the forearm having been distended by the application of a bandage above the elbow, the needle of the syringe is introduced obliquely into one of them; the bandage is then removed and the fluid slowly injected, its effect on pulse and respiration being all the while carefully watched. Before connecting the syringe with the needle it is well to allow a drop of blood to escape from the latter, as this will show both that the needle has properly entered the vessel, and that it is free from air bubbles. Any exposure or dissection of the vein is to be avoided, the results of simple puncture in the above manner being much more satisfactory. The same method is recommended in making injections of whatever nature or bulk into the nervous system, the more complicated transfusion apparatus, etc., being discarded.

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(47) Elimination of Antipyrin in Children.

It has been often remarked how great is the tolerance of children for antipyrin. Children of from 2 to 4 years old can take enormous proportionate doses without the untoward symptoms—such as nervous phenomena, collapse, vomiting, cyanosis—so frequent in adults. It seemed to MM. Perret and Givre (*Lyon Médical*, June 7th, 1891) that this tolerance might be in some way connected with a quicker elimination of the drug in children than in adults. As medical literature is silent on this point, they commenced a series of observations to ascertain at what time after ingestion the drug first made its appearance in the urine. With this object a uniform dose of 8 grains was given to eight children, aged from 3 to 6 years, their urine having been previously examined and found normal. The urine of these was afterwards collected in pairs thirty, forty, fifty, and sixty minutes after ingestion, and of all the eight once an hour afterwards. The presence of antipyrin was then sought by means of ferric chloride, which gives a decided reaction with 1 part in 5,000 of urine. It was thus established that the drug appeared first in fifty minutes, more strongly in an hour, and was still present in considerable quantity nine hours after ingestion. Three series of observations gave practically identical results. This corresponds, also, exactly with the results obtained in the case of adults and of six aged men upon whom similar observations were made. In order to ascertain the length of time taken to excrete the drug, three fresh series of observations were made, which yielded the following results: In children, after a dose of 8 grains, the drug can be detected in the urine from fifteen to twenty hours after and no longer; in adults it is present twenty-four to thirty hours after, while in the aged elimination is still slower, always using the same dose of 8 grains. Even with proportionately greater doses, therefore, the rate of elimination is much quicker in children than in adults. The writers have also made out the additional fact that the duration of the time of elimination is prolonged in proportion to the dose. The conclusions which may be drawn from these facts are therefore as follows: (1) At all ages the time at which elimination commences is the same (three-quarters to one hour); (2) children excrete the drug more rapidly than adults, and adults more rapidly than the aged; (3) increase of dose does not in any way affect the time at which excretion commences, but markedly prolongs its duration. These facts will, in a measure, explain the extreme tolerance of children, as compared with dults, to large doses of antipyrin.

PATHOLOGY.

(48) The Origin of Effusions.

Dr. G. Pisenti (*Riforma Medica*, June 12th, 1891) describes an experiment which serves to explain several points as to the origin of effusions. The method is simple, and one which can be easily demonstrated in the course of a lecture on pathology. The only preparation necessary is the following: A rabbit or guinea-pig is fixed in the retention apparatus, anæsthesia being produced either by ether or chloroform. An incision is then made along the linea alba about 4 inches long, so as fully to expose the abdominal cavity. The intestines are then raised and turned over to the left, thus exposing the portal vein, into which a cannula is tied. This cannula is next placed in communication with a reservoir containing either pure defibrinated blood, a mixture of blood and saline solution, or simply saline solution (0.75 per cent.). The liquor should be kept warm, and the pressure measured by means of a manometer. The costal arch is then raised so as expose the upper surface of the liver, and the artificial circulation is commenced under a pressure of about 2 mm. of mercury. In a few moments pale areas appear on the surface of the liver, which continue to increase as long as the circulation is maintained. If pressure be then raised a curious phenomenon is observed: numerous small drops of liquid exude through Glisson's capsule, and after a time run together, so that the surface of the liver becomes bathed in liquid. The rapidity of the exudation depends upon the pressure at which the artificial circulation is maintained. (1) There has thus been produced a true œdema from stasis, for by supplying more liquid than can be removed by the efferent vessels, all the effects of a block in the circulation are reproduced, this effect increasing with any increase in pressure. (2) The same method can be used to demonstrate the production of exudation due to hydræmic plethora: by introducing simple saline solution all the effects of a hypo-albuminous condition of the blood can be obtained. In this case the effect on a single organ, the liver, will be similar to that produced on the entire body by the intravenous injection of large quantities of saline solution. It serves well to explain the origin of the ascites so

often seen associated with a watery condition of the blood. (3) It is well known that some tissues are more prone to œdema than others, and this is also illustrated by the above experiment, for of all organs that might be used the liver is that in which the phenomena can be best seen. It would appear, then, that the walls of its vessels are less resistant than those of other organs to the passage of liquids. (4) Lastly, from the rapidity with which exudation commences, it may be concluded that this can happen without any alteration of the vessel walls themselves, and this in opposition to the view held by some that exudation cannot take place without initial vascular lesions. To summarise, this experiment of Dr. Pisenti demonstrates (*a*) that increase of intravascular pressure plays an active part in the production of exudations (exudation of stasis); (*b*) that exudation may arise from alteration in the consistence of the blood (exudation from hydræmia); (*c*) that the histological constitution of the vascular walls varies from tissue to tissue, and from organ to organ; (*d*) that exudation may take place independently of any alteration in the walls of the vessels.

(49) Experimental Malarial Infection in Man and in Animals.

Professor E. di Mattei describes, in the form of a preliminary note (*Riforma Medica*, May 30th, 1891), some attempts to modify the course and character of an ague of a given type by intravenous injections of blood from a patient suffering from another type of the disease. He also describes some experiments which were made with a view of studying the mode of spread of malarial disease in pigeons, and its relation to similar diseases in the human subject. His more important conclusions may be summarised as follows: (1) In man, after intravenous injection of blood containing a well-determined variety of malarial parasite, not only is malarial infection constantly reproduced, but the type of the disease corresponds exactly to that from which the injections were made. This would strengthen the view that a given parasite will always be associated with a certain definite febrile cycle. (2) In pigeons (*a*) the parasites of the blood are never reproduced in whatever manner the inoculations may be made; (*b*) the character of the temperature curve gives no positive information as to the existence of a particular parasite in the blood; (*c*) cohabitation and reproduction are not means of infection; (*d*) therapeutic measures applicable to the disease in man are useless in the case of pigeons; (*e*) lastly, it is not possible to produce infection in man by the blood of a malarial pigeon, or *vice versâ*.

OTOLOGY.

(50) Operative Treatment for Foreign Bodies in the Tympanum.

Zaufal (*Annales des Mal. de l'Oreille*, March, 1891) considers it necessary to operate at once if there are dangerous symptoms such as marked dulness of hearing, or complete deafness owing to destruction of the osseous plate of the stapes by the foreign body or instruments used for its extraction; or, if it is certain from the nature of the foreign body, its shape or size, that it can no longer be extracted through the natural passage. At the same time, it is justifiable to wait if there is any hope of the conditions becoming more favourable for the exit of the foreign body under treatment of the meatus, always supposing that the patient can be under skilful supervision, the temperature being taken every day, and ophthalmoscopic examination being frequently practised. The ophthalmoscopic indications for operation are as follows: (1) the appearance of neuro-retinitis or tumefaction of the optic nerve at the commencement of the case; (2) a fundus normal at the commencement, but in which later there appear hyperæmic manifestations which keep on increasing, without any other cause than the suppuration in the ear; (3) progressive venous hyperæmia of the fundus with simultaneous elevation of temperature, even 1° C. above normal. The modes of operation are: (1) detachment of the auricle; (2) detachment of the auricle with removal of the membranous lining of the posterior wall of the osseous meatus; (3) detachment (with the chisel) of the posterior wall of the osseous meatus, eventual laying open of the mastoid antrum, and removal of the epitympanic portions of the roof of the osseous meatus.

BACTERIOLOGY.

(51) Action of Products of Bacillus Pyocyaneus.

MM. Morat and M. Doyon (*Lyon Médical*, May 31st, 1891, p. 143), using the filtered products of the bacillus pyocyaneus, found that after the injection of from 10 to 20 cubic centimetres into the veins of a rabbit the pneumogastric soon lost its inhibitory action on the heart; the vaso-dilators of the sympathetic trunk were paralysed, whilst the vaso-constrictors remained unaffected, even under considerable irritation; the irido-dilator nerves of the sympathetic, however, still remained active; but the chorda tympani lost its vaso-dilating power. These results they found, however, could not be obtained in the case of the dog: nor were they able to obtain any evidence of any action of this poison on the sympathetic trunks in the cat.

ANATOMY.

(52) The Anatomical Relations of the Gluteal Fold.

M. P. Thiéry (*Bulls. de la Soc. Anat. de Paris*, April-May, 1891) gives an account of twenty dissections made for the investigation of the gluteal fold. After referring to the usual account, which makes the fold correspond with the lower edge of the gluteus maximus, he proceeds to point out that the part of the muscle which arises from the coccyx extends very low down the femur, at least as far as the junction of the upper and middle thirds. On the living, when the gluteus maximus is in action, it is easy to ascertain that the gluteal fold is soft and relaxed. The edge of the muscle runs obliquely downwards and outwards; the gluteal fold runs almost transversely. The two lines cross near the middle of the thigh, and it is easy by dissection to trace the edge of the muscle much below the fold. M. Thiéry agrees with Luschka in attributing the gluteal fold to the presence of a pad of fat and to bands of connective tissue which fasten the skin of the nates to the tuberosity of the ischium. The depth of the gluteal crease depends upon the degree to which the thigh is extended; on flexion it diminishes and obviates tension of the integuments.